

June 30, 2004



# Acquisition

## The Central Test and Evaluation Investment Program (D-2004-097)

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### **Acronyms**

CTEIP	Central Test and Evaluation Investment Program
GAO	General Accounting Office
JIM	Joint Improvement and Modernization
OSD	Office of the Secretary of Defense
REP	Resource Enhancement Program
T&E	Test and Evaluation
TTD&D	Test Technology Development and Demonstration



INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-4704

June 30, 2004

MEMORANDUM FOR DIRECTOR, OPERATIONAL TEST AND EVALUATION

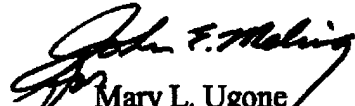
SUBJECT: Report on the Central Test and Evaluation Investment Program (Report No. D-2004-097)

We are providing this report for your information and use. We considered management comments on a draft of this report in preparing the final report.

Comments on the draft of this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. Bruce A. Burton at (703) 604-9071 (DSN 664-9071) or Mr. Michael Simpson (703) 604-8972 (DSN 664-8972). See Appendix E for the report distribution. The team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

  
Mary L. Ugone  
Assistant Inspector General  
for Acquisition Management

## Office of the Inspector General of the Department of Defense

Report No. D-2004-097

June 30, 2004

(Project No. D2003AB-0082)

### The Central Test and Evaluation Investment Program

#### Executive Summary

**Who Should Read This Report and Why?** Test and evaluation officials who are responsible for test investment of DoD test facilities should read this report to better understand the criteria and award process for the Central Test and Evaluation Investment Program.

**Background.** This report is in response to a request by the Director, Operational Test and Evaluation, who is responsible for the oversight of test and evaluation facilities. The objectives were to determine the degree to which Central Test and Evaluation Investment Program funds were used to meet the needs of multi-Service test capabilities and whether the funded projects were subsequently procured by the Services. We reviewed 59 projects that had received funding of approximately \$856 million from FY 1990 through FY 2003.

Projects selected for the Central Test and Evaluation Investment Program must be development and coordination projects geared toward multi-Service application. The Services are expected to budget for the procurement of any system or test capabilities developed in this program. Other program objectives are to increase interoperability and interconnectivity among test centers and ranges and avoid unnecessary duplication. Projects are selected from candidates submitted by the Services or developed from initiatives proposed by the Office of the Secretary of Defense.

The Central Test and Evaluation Investment Program is differentiated by three categories. Joint Improvement and Modernization projects address critically needed investments in major functional areas of test and evaluation, and they comprise the majority of the projects. Resource Enhancement Program projects are intended to develop quick-reaction solutions to operational test problems that require immediate development and funding. Test Technology Development and Demonstration projects are intended to transition mature technologies from laboratories to satisfy test and evaluation needs.

**Results.** The Central Test and Evaluation Investment Program has been successful in satisfying multi-Service needs and transitioning projects to the Military Departments. Through the Program, the Office of the Director, Operational Test and Evaluation has completed 24 capabilities and assets and has 31 ongoing projects that, when completed, should satisfy multi-Service test capabilities. Only four projects were terminated.

**Management Comments and Audit Response.** Although not required to comment, the Principal Deputy Director, Operational Test and Evaluation and the Director, Air Force Test and Evaluation Command provided comments on the report discussion. We considered the Management Comments on the factual content of the report and made

changes where deemed appropriate. See the Finding section of the report for a discussion of management comments and the Management Comments section of the report for the complete text of comments.

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## Background

This audit was requested by the Director, Operational Test and Evaluation. The objectives were to determine the degree to which Central Test and Evaluation Investment Program funds were used to meet the needs of multi-Service test capabilities and whether the funded projects were subsequently procured by the Services.

**Central Test and Evaluation Investment Program.** The Central Test and Evaluation Investment Program (CTEIP) was established by the Department of Defense Appropriations Act, 1991, Public Law No. 101-511, Nov. 5, 1990. The corresponding language in Sen. REP No. 101-521, 101<sup>st</sup> Cong., 2<sup>nd</sup> Sess. (1991) sought to improve the coordination and planning of investments in Test and Evaluation (T&E) facilities. Congress concluded that CTEIP should be a developmental and coordination program that is geared toward multi-Service application of any systems being developed. Specifically, allocating test resources on a corporate basis rather than on Service criticality will increase interoperability and interconnectivity among test centers and ranges. This approach will allow the T&E expertise to focus on test requirements and capabilities of joint initiatives that are of the highest priority and will eliminate unwarranted duplication of effort. CTEIP projects are assigned to the Services and Defense agencies for execution and implementation. A project has to meet three criteria to be included in the CTEIP.

- The project must be multi-Service.
- The funding must be used for developmental purposes.
- The funding must not be used to procure the developed test asset or capability.

The ongoing and completed projects usually resulted in a one-of-a-kind test facility or test asset. T&E customers can then use these test facilities and test assets at the Major Range and Facilities Bases and thus avoid having to procure their own assets. By doing so, CTEIP has met the multi-Service purposes and avoided duplication.

**The Selection Process.** The projects are selected from candidates submitted by the Services or developed from initiatives proposed by the Office of the Secretary of Defense (OSD). Proposed projects that originate from the Services are initially reviewed and evaluated at various levels of the Services' T&E Executive Agent Structure and are then forwarded to OSD for consideration. CTEIP is differentiated by three categories: Joint Improvement and Modernization (JIM), Resource Enhancement Program (REP), and Test Technology Development and Demonstration (TTD&D). JIM projects address critically needed investments in major functional areas of T&E and comprise the majority of the projects funded under CTEIP. These projects are usually the largest in terms of funding and scope. REP projects are intended to be quick-reaction solutions to operational test problems that require immediate development and funding. TTD&D projects are intended to transition mature technologies from laboratories to satisfy test and

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evaluation needs. We reviewed 31 ongoing projects with funding of \$350.20 million; 24 completed projects that had been funded at \$429.94 million, and 4 terminated programs that had received \$76.29 million.

**Joint Improvement and Modernization Process.** The JIM process begins when the T&E executive agent issues a Needs and Solutions Call to the Services and Defense agencies. The office of the T&E executive agent consists of the following members: test and reliance personnel, a test resource advisory group, a board of directors (Executive Secretariat Staff), Board of Directors Executive Secretariat, and the Board of Directors. This organization identifies the Needs and Solutions submitted by the Services and Defense agencies that have the potential of meeting CTEIP project criteria. The test and evaluation executive agent combines, prioritizes, and submits the proposals to the Director, Operational Test and Evaluation who considers validating them and including them in the Program Objective Memorandum.

**Resource Enhancement Program Process.** The REP process begins when the Services and Defense agencies submit their proposals to the REP working group. The REP working group reviews, analyzes, prioritizes, and submits the nominated REP projects to the Deputy Director of Operational Test and Evaluation for Systems and Test Resources. In coordination with the OSD Test Investment Coordinating Committee, the Deputy Director makes the final recommendation to the Director on which subprojects to approve.

**Test Technology Development & Demonstration Process.** The TTD&D nomination and selection process begins when the project director issues a Call for Proposal memorandum. The memorandum identifies areas of special interest for technology improvements based on DoD instrumentation requirements. The Service and Defense agencies' coordinators submit proposals with their requirements to the OSD Test Investment Coordinating Committee. The Committee reviews and prioritizes the proposals before submitting them to the CTEIP program element manager who, in turn, forwards the proposals to the TTD&D working group for review. The working group in coordination with the project director evaluates, ranks, and recommends top projects to the CTEIP program element manager. The CTEIP program element manager uses the completed analyses of proposals and makes recommendations to the Deputy Director of Test and Evaluation for Resources and Ranges, who then makes the final recommendation to the Director, Operational Test and Evaluation for approval.

## Objectives

The overall audit objective was to review the Central Test and Evaluation Investment Program (the Program). Specifically, we evaluated the degree to which the Program funds were used to meet the needs of multi-Service test capabilities and the degree to which projects funded by the Program were procured by the Services. See Appendix A for a discussion of the scope and methodology. See Appendixes B, C, and D for a list of the CTEIP projects reviewed.



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## **Adequacy of Central Test and Evaluation Investment Program Process**

The Office of the Director, Operational Test and Evaluation, through the Central Test and Evaluation Investment Program, was effective in funding projects that satisfied multi-Service needs and that were used by the Military Departments. The Program funded 59 projects totaling \$856.43 million from FY 1990 through FY 2003. Twenty-four projects have been completed and 22 are being used by the Military Departments. In addition, as of October 2003, there were 31 ongoing projects which, when completed, will have multi-Service capabilities. Only four projects were terminated before transition. The completed projects were successful because the Program process is well structured and includes stringent reviews which facilitate effective management of the projects. As a result, the DoD has achieved tangible benefits, through the CTEIP, that are demonstrated and in place on the nation's ranges and test facilities. In addition, the partnership between the Office of the Director, Operational Test and Evaluation and the Services allows this Program to provide increased interoperability among DoD ranges.

### **CTEIP Management**

The CTEIP management has focused on getting the best return on test investments and making the most efficient use of test assets that are being depleted. CTEIP facilitates the funding of T&E investments that encourage joint development and implementation of new test capabilities. The specific objectives of the Program are to preserve and enhance DoD test capabilities and to proactively respond to the problem of increasing requirements and declining assets. CTEIP achieves these objectives by doing the following:

- Supporting joint projects that apply state-of-the-art technologies to correct shortfalls in DoD test and evaluation capabilities and improve the efficiency of the test process;
- Maximizing efficient inter-Service use of test assets by improving interoperability and interconnectivity among test centers, ranges, and facilities;
- Establishing and maintaining a program to develop test and evaluation technology to investigate, develop, and produce prototypes of advanced technologies for application to T&E that reduce resource requirements such as radio spectrum, manpower, operating expenses, maintenance requirements, and costs;
- Achieving interoperability across the Services in test instrumentation, targets, and threat simulators;

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- Developing, validating, and integrating modeling and simulation with open-air testing to provide timely, accurate, and cost-effective results;
  - Exploiting capabilities in mobile test instrumentation as an alternative to fixed facilities; and
  - Providing resources to respond to critical near-term shortfalls in operational test capabilities.

CTEIP is a forum for DoD T&E participants with differing interests to come together and make corporate investment decisions on test investments that improve test capabilities. As a result, the Office of the Director, Operational Test and Evaluation, through the Program, has effectively funded 59 projects totaling \$856.43 million from FY 1990 through FY 2003. Of the 59 projects funded, 31 are ongoing, 24 are completed, and 4 were terminated.

## Ongoing Projects

We reviewed 31 ongoing projects with expenditures of approximately \$350 million; all of these ongoing projects will serve multiple purposes for the Military Departments. The 31 projects included 19 JIM projects, 7 REP projects, and 5 TTD&D projects. The complete list of ongoing projects is included in Appendix B.

The Contamination Avoidance Detector Test Suite, the Airborne Icing Tanker, and the Computed Tomography Capability are examples of ongoing projects that were approved. When completed, the Contamination Avoidance Detector Test Suite, the Airborne Icing Tanker, and the Computed Tomography Capability assets will be available to conduct various tests at the respective ranges for multi-Service purposes.

**The Contamination Avoidance Detector Test Suite.** The Contamination Avoidance Detector Test Suite is a JIM project being developed at Dugway Proving Grounds in Utah. The purpose of the project is to develop instrumentation and facilities that incorporate the latest chemical-biological technologies to generate, collect, and analyze operational and developmental test data under realistic threat scenarios. The chemical-biological capability for test ranges is essential because of the increasing threat of chemical-biological warfare facing the warfighter on the battlefield.

**The Airborne Icing Tanker.** The Airborne Icing Tanker is a JIM project being executed at the Air Force Test Flight Center in California. When completed, the Tanker will provide test capabilities for DoD aircraft under various simulated icing conditions. Aircraft icing can distort the flow of air over the wing of an aircraft to the extent that it will affect the quality of flight and even cause engine stoppage. The Airborne Icing Tanker will use a controlled environment to simulate the effects of aircraft icing caused by natural rain. This testing will help reduce the risk of fatalities and the loss of equipment.

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The Airborne Icing Tanker has experienced some schedule slips caused by delays in the delivery of parts to the Air Force Test Flight Center and Eglin Air Force Base that subsequently changed the initial operational completion date from FY 2002 to FY 2004.

**The Computed Tomography Capability.** The Computed Tomography Capability is a TTD&D project being executed at China Lake, California, and will provide test capabilities using technology similar to that of the Computed Imaging Tomography scan used in the medical field. The Computed Tomography Capability will provide internal images of munitions and indicate any flaws or anomalies within the weapon system not able to be seen by the naked eye. The entire list of ongoing projects is in Appendix B.

## Completed Projects

Twenty-four projects totaling approximately \$429 million have been completed and 22 are being used to satisfy multi-Service test capabilities at the test ranges. The 24 projects included 17 JIM projects, 5 REP projects, and 2 TTD&D projects. Since the early 1990s, emerging technology has sometimes dictated the revision of project requirements as the projects evolved. Examples of successfully transitioned projects are shown as follows.

**The Smart Munitions Test Suite.** The Smart Munitions Test Suite was originally designed to be a multi-object instrumentation tracking system that could monitor the munitions dispensed from an artillery shell missile from launch to impact. The Smart Munitions Test Suite technology became obsolete and was not fielded according to the initial requirements; however, the instrumentation-tracking concept used in the Smart Munitions Test Suite facilitated the creation of four new systems.

**The Multi-Object Tracking Radar.** The Multi-Object Tracking Radar was one of the new systems developed from the Smart Munitions Test Suite. The Army led the development of the technology used in the Multi-Object Tracking Radar at the White Sands Missile Range. The Program Manager stated that the Air Force, the Missile Defense Agency, and foreign countries have procured the Multi-Object Tracking Radar.

**The IBIS<sup>1</sup> Hammer.** The IBIS Hammer is another example of a successfully completed project. The IBIS Hammer is a mobile, medium-range, surface-to-air, missile radar system designed to defend ground forces from aerial attack by fixed and rotary wing aircraft and high precision guided weapons. The system has an integrated local-frequency-scanned Target Acquisition Radar and phased array Target Engagement Radar that can track two targets simultaneously. The Target Acquisition Radar acquires, prioritizes, and hands off targets of opportunity to the Target Engagement Radar, which engages targets one at a time. A significant objective for the IBIS Hammer was the development of a common system interface design for the testing of assets at either the Nellis Test and Training

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<sup>1</sup> IBIS is the full name of the project, not an acronym.

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Range at Nellis Air Force Base in Nevada or the Electronic Combat Range at China Lake. The Navy installed the instrumentation package on the IBIS Hammer at the Electronic Combat Range. The IBIS Hammer was delivered to the Electronic Combat Range in May 2000 and was fielded in October 2001. The entire list of completed projects is in Appendix C.

## Terminated Projects

Four projects that the Office of the Director, Operational Test and Evaluation funded at approximately \$76 million were terminated without being successfully completed.

**The Advanced Multiple Object Acquisition System.** The Advanced Multiple Object Acquisition System project was initiated to develop the next generation multi-target acquisition and tracking system. The intention of the project was to develop a system to track large numbers of low radar cross-section, high velocity targets, decoys, and debris. The Advanced Multiple Object Acquisition System program was cancelled on November 14, 2001, because it had become too expensive to fund.

**The Decade Radiation Test Facility-Enhanced.** The Decade Radiation Test Facility was to enhance the capability of the basic Decade X-ray effects simulator at the Arnold Engineering Development Center. The enhancement would have enabled testing of systems and components in multiple radiation environments that were representative of what was expected in a nuclear encounter. The Deputy Director, Systems and Test Resources terminated the Decade Radiation Test Facility-Enhanced on July 31, 2003. The decision was based on several major concerns with the project. One concern was that the plan focused on meeting a near-term capability rather than one that would satisfy customer requirements beyond 2010. Another concern was that the facility would not be operated as part of a Major Range and Test Facility Base, and there did not appear to be a customer base that was adequate to sustain economic operation of the facility.

**The Global Positioning System Validation.** The Global Positioning System Validation Program Office was established to develop a satellite test facility for the next generation of global positioning systems. The project received \$5.025 million in funding for FYs 2000 through 2002, with an estimated total cost of \$7.3 million. However, when the contract was awarded during FY 2001, problems arose because sufficient funding was not available. The program office terminated the contract for convenience as it was unable to find another sponsor to provide the additional funding needed to complete the project. The contractor did, however, deliver a number of nearly complete system components to the Government.

**The Next Generation Target Control System.** The Next Generation Target Control System was designed to place aerial and surface targets in realistic scenarios for weapon system evaluation. The Office of the Director, Operational

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Test and Evaluation incurred approximately \$57 million in costs on the project before it was cancelled in 1998 because the development of the needed technologies became too costly.

## **Conclusion**

The CTEIP program element manager has been effective in overseeing the CTEIP because of the well-structured process in place that includes stringent review of projects to ensure that they meet multiple-Service uses. The process also requires active participation by all concerned parties when potential CTEIP projects originate in the Services and are initially reviewed and evaluated at various levels of the Services' T&E Executive Agent structure.

## **Management Comments and Audit Response**

**Management Comments.** Although not required to comment, the Principal Deputy Director, Operational Test and Evaluation requested that a footnote be added to show funding for five ongoing projects programmed to receive FY 2004 and out year funds and that the Decade Radiation Test Facility-Enhanced funding be changed to include only expenditures before it was terminated.

**Audit Response.** The scope of this audit, as stated in Appendix A, was from FY 1990 through FY 2003. Footnotes were used to distinguish project funding beyond FY 2003 or project funding received at a particular test facility. We revised the funding shown for the Decade Radiation Test Facility-Enhanced.

**Management Comments.** Although not required to comment, the Director, Air Force Test and Evaluation Command requested that a fourth project be added to the terminated projects in Appendix D. The Director stated that funding totals in Appendix D included funds to complete a project that were not expended, but were programmed for the project's completion. The Director also stated that the Digital Video Systems Development was not funded and did not produce a product.

**Audit Response.** We revised Appendix D to include a fourth project that was terminated and revised funding to include only funds that were expended before projects were terminated. However, the Digital Video Systems Development was funded and is producing an effective product.

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## Appendix A. Scope and Methodology

The Director, Operational Test and Evaluation requested an audit of the Major Range and Test Facility Base and the CTEIP. The Major Range and Test Facility Base topics were discussed in the Office of the Inspector General of the Department of Defense Report No. D-2004-035, "Major Range and Test Facility Base," December 8, 2003. Specifically, for this audit, we reviewed the CTEIP to determine the degree to which the funding was used to meet the needs of multi-Service test capabilities and the degree to which developed test capabilities of projects have subsequently been procured by the Services. We reviewed the guidance used for the execution of the CTEIP and the congressional language that established CTEIP. We reviewed the procedures and processes for how projects were submitted and approved. We interviewed personnel and gathered information from the Office of the Director, Operational Test and Evaluation. We visited 11 different locations that manage projects and receive funds, and when possible, we toured the test facilities. We verified the funding documentation received at each location with the CTEIP program element manager; however, we did not validate the accuracy of the data obtained to source documents. We interviewed personnel and gathered information about various CTEIP projects that began in or were completed from FY 1990 through FY 2003. The 11 locations that we visited were White Sands Missile Range; Holloman Air Force Base; Aberdeen Test Center; Naval Air Warfare Center-Point Mugu; Naval Air Warfare Center-China Lake; Naval Air Warfare Center Patuxent River; Atlantic Undersea Test and Evaluation Center; Air Armament 46th Test Wing; Arnold Engineering Development Center; Air Force Flight Test Center; and the Program Manager for Instrumentation, Targets and Threat Simulators.

We performed this audit from April 2003 through March 2004 in accordance with generally accepted government auditing standards.

**Use of Computer-Processed Data.** We did not use computer-processed data to perform this audit.

**General Accounting Office High-Risk Area.** The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the GAO high-risk area to Overcome Support Infrastructure Inefficiencies.

### Management Control Program Review

We did not review the management control program because it was not an announced objective. The audit was conducted in response to a request by the Director, Operational Test and Evaluation that did not include a review of the management control program.

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## **Prior Coverage**

During the last 5 years, the General Accounting Office (GAO) and the Inspector General of the Department of Defense (IG DoD) have issued two reports related to the conditions of military facilities. Unrestricted GAO reports can be accessed over the Internet at <http://www.gao.gov>. Unrestricted IG DoD reports can be accessed at <http://www.dodig.osd.mil/audit/reports>.

### **GAO**

GAO Report No. GAO-03-274, "Defense Infrastructure: Changes in Funding Priorities and Strategic Planning Needed to Improve the Condition of Military Facilities," February 19, 2003

### **IG DoD**

IG Report No. D-2004-035, "The Major Range and Test Facility Base," December 8, 2003

## Appendix B. Ongoing Projects

JIM Projects	Lead Service	Funding (\$ in millions)
1. Advanced Instrumentation Data and Control System	Air Force	30.00 <sup>1</sup>
2. Airborne Icing Tanker	Air Force	11.25
3. Advanced Range Telemetry	Air Force	19.70
4. Airborne Separation Video System	Navy	41.18 <sup>2</sup>
5. Contamination Avoidance Detection Test Suite	Army	4.30
6. Digital Video Laboratory	Air Force	2.50 <sup>3</sup>
7. Digital Video Systems Development	Army	4.00
8. Enhanced Flight Termination	Air Force	9.30 <sup>4</sup>
9. Electromagnetic Environmental Effects Generating System	Navy	15.40
10. Electromagnetic Transient Test & Evaluation Facility	Navy	9.60
11. Enhanced Range Application Programs	Air Force	2.80 <sup>5</sup>
12. Foundation Initiative 2010	Army	25.70 <sup>6</sup>

<sup>1</sup> Includes funding to complete project beyond FY 05.

<sup>2</sup> Amount includes Air Force funding.

<sup>3</sup> Amount represents funding at Naval Air Warfare Center, Patuxent River only.

<sup>4</sup> Includes funding to complete project beyond FY 06.

<sup>5</sup> Amount represents funds received by the Air Armament Center 46<sup>th</sup> Test Wing, Eglin Air Force Base only.

<sup>6</sup> Amount reflects funding received by the Project Manager for Instrumentation, Targets, and Threat Simulators.



## Appendix B. Ongoing Projects (cont'd)

JIMI Projects (continued)	Lead Service	Funding (\$ in millions)
13. High Speed Massive Memory	Army	7.52 <sup>7</sup>
14. Joint Advanced Missile Instrumentation	Navy	23.00
15. Joint Command, Control, Communication, Computers, Intelligence, Surveillance, and Reconnaissance Test & Evaluation Capability	Navy	35.40
16. Joint Installed System Test Facility Preplanned Product Improvement	Navy/Air Force	34.29
17. Land Sea Vulnerability Test Capabilities	Army	18.53
18. Roadway Simulator	Army	33.00
19. Tri-Service Signature Measurement and a Database System	Air Force	7.70 <sup>8</sup>
		<b>Total \$335.17</b>

<sup>7</sup> Amount is included on Ongoing and Completed charts.

<sup>8</sup> Amount reflects funding from FY 1997 through FY 2003 at the Atlantic Undersea Test and Evaluation Center only.

## Appendix B. Ongoing Projects (cont'd)

REP Projects	Lead Service	Funding (\$ in millions)
1. Active Electronically Scanned Array Jammer	Navy	2.79
2. Threat Signals A	Air Force	1.05
3. Fire and Forget Missile	Navy	2.80
4. Global Air Traffic Management	Air Force	.53
5. Seeker Integration	Navy	1.28
6. Shallow Water Acoustic Target	Navy	.21 <sup>1</sup>
7. Weapons Set to Hit Targets	Navy	.09 <sup>2</sup>
		<b>Total \$8.75</b>

<sup>1</sup> Amount reflects the funding received at Atlantic Undersea Test and Evaluation Center.

<sup>2</sup> Ibid.

## Appendix B. Ongoing Projects (cont'd)

TTD&D Projects	Lead Service	Funding (\$ in millions)
1. Common Events Network Test Instrumentation System	Air Force	1.40
2. Computer Topography Capability	Navy	.88
3. Miniature Optical Nodes of Testing	Navy	1.30
4. Multi-static Radar Receiver	Army	1.80 <sup>1</sup>
5. Universal Radar Targets Simulator	Army	.90
		<b>Total \$6.28</b>
<b>Total of all 31 Ongoing Projects Total \$350.20</b>		

<sup>1</sup> Amount includes funding for FY 2004 and money received from Army.

## Appendix C. Completed Projects

JIM Projects	Lead Service	Funding (\$ in millions)
1. Aerial Cable Test Capabilities	Army	20.90
2. Air Combat Environment Test and Evaluation Facility	Navy	62.09 <sup>1</sup>
3. Anti Radiation Missile	Navy	21.50
4. Common Airborne Instrumentation System	Navy	50.00
5. Enhanced Integrated Air Defense System Messaging Stimulation/Stimulation Environment	Air Force	.90
6. Holloman High Speed Test Track	Air Force	19.33
7. Infrared Radar Plume Measurement Capability	Army	9.50
8. Joint Installed Systems Test Facility Upgrade	Navy	84.82
9. Target/Threat Validation	Navy	6.00 <sup>1</sup>
10. Translated GPS Range System	Air Force	16.30
11. Transportable Range Augmentation and Control System	Army	20.11
12. Hardened Subminiature Telemetry and Sensor System	Navy	17.12 <sup>2</sup>

<sup>1</sup> Amount reflects CTEIP funding only.

<sup>2</sup> Amount reflects funding through FY 2002.

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## Appendix C. Completed Projects (cont'd)

JIM Projects	Lead Service	Funding (\$ in millions)
13. High Speed Massive Memory.	Army	7.52 <sup>3</sup>
14. Real-Time Digitally Controlled Analyzer Processor	Air Force	2.70
15. Smart Munitions Test Suite	Army	39.90
		<b>Total \$378.69</b>

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<sup>3</sup> Amount is included on Ongoing and Completed charts.

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## Appendix C. Completed Projects (cont'd)

REP Projects	Lead Service	Funding (\$ in millions)
1. Countermeasure Threat Emulator	Navy	2.40
2. Instrumentation of the IBIS Hammer System	Navy	2.02
3. Memorex	Air Force	.84
4. SA-XX Modification	Navy	1.20
5. Weapons Analysis Facility	Navy	4.50
		<b>Total 10.96</b>

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## Appendix C. Completed Projects (cont'd)

TTD&D Projects	Lead Service	Funding (\$ in millions)
1. Next Generation Instrumentation Bus Standard	Navy	.73
2. Soft Impact Location Capability	Navy	1.34
Total 2.07		

## Appendix C. Completed Projects (cont'd)

JIM Projects <sup>1</sup>	Lead Service	Funding (\$ in millions)
1. Joint Installed System Test Facilities- Generic Range Target Generator	Navy	28.22
2. Magnetic Levitation Upgrade	Air Force	10.00
		<p><b>Total      38.22</b></p> <p><b>Total 22 Completed &amp; Fielded Projects    \$ 391.72</b></p> <p><b>Total 2 Completed/Not Fielded Projects    \$ 38.22</b></p> <p><b>Combined Totals                      \$ 429.94</b></p>

<sup>1</sup> Reflects two JIM projects that were completed but not fielded.



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## Appendix D. Terminated Projects

Jim Projects	Lead Service	Funding (\$ in millions)
1. Advanced Multiple Objects Acquisition System	Army	1.94
2. Decade Radiation Test Facility-Enhanced	Air Force	12.32
3. Global Positioning System Signal Violation	Air Force	5.03
4. Next Generation Target Control System	Air Force	57.00
Total 76.29		

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## **Appendix E. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition, Technology, and Logistics  
Under Secretary of Defense (Comptroller)/Chief Financial Officer  
Under Secretary of Defense for Personnel and Readiness  
Vice Chairman of the Joint Chiefs of Staff  
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)  
Director, Operational Test and Evaluation

### **Department of the Army**

Assistant Secretary of the Army (Financial Management and Comptroller)  
Commander, U.S. Army Aberdeen Test Center  
Commander, U.S. Army Dugway Proving Ground  
Commander, U.S. Army Yuma Proving Ground  
Commanding General, U.S. Army White Sands Missile Range  
Commander, Reagan Test Site  
Auditor General, Department of the Army

### **Department of the Navy**

Commander, Naval Air Warfare Center – Aircraft Division  
Commander, Naval Air Warfare Center – Weapons Division  
Commander, Atlantic Undersea Test and Evaluation Center  
Naval Inspector General  
Auditor General, Department of the Navy

### **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Commander, Arnold Engineering Development Center  
Commander, Air Force Flight Test Center  
Commander, 46th Test Wing, Eglin Air Force Base  
Auditor General, Department of the Air Force

### **Other Defense Organization**

Commander, Joint Interoperability Test Command, Defense Information Systems Agency

### **Non-Defense Federal Organization**

Office of Management and Budget

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## **Congressional Committees and Subcommittees, Chairman and Ranking Minority Member**

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Reform  
House Subcommittee on Government Efficiency and Financial Management, Committee  
on Government Reform  
House Subcommittee on National Security, Emerging Threats, and International  
Relations, Committee on Government Reform  
House Subcommittee on Technology Policy, Intergovernmental Relations, and the  
Census, Committee on Government Reform

# Operational Test and Evaluation Comments



OPERATIONAL TEST  
AND EVALUATION

OFFICE OF THE SECRETARY OF DEFENSE  
1700 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1700

APR 12 2004

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDITING

SUBJECT: Report on the Central Test and Evaluation Investment Program (Project No. D2003AB-0082)

This correspondence is in response to your memorandum of March 17, 2004, which solicited comments on a draft of the subject report. The attachment provides our comments and proposed changes to the draft, most of which provide corrections to data or clarifications of processes. Thank you for the opportunity to comment on the draft; I look forward to the issuance of the final report.

D.W. Duma  
Principal Deputy

Attachment:  
As stated



# Air Force Test and Evaluation Command Comments



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC



MEMORANDUM FOR DOD INSPECTOR GENERAL  
ATTN: MICHAEL SIMPSON


APR 02 2004

FROM: AF/TE

SUBJECT: Comments to Draft Report on Central Test and Evaluation Investment Program  
(CTEIP) - (Project No. D2003AB-0082)

AF/TE appreciates the hard work and diligent efforts of the DOD IG for this extensive review of the CTEIP Program. Comments on the draft report are provided in the attached comments matrix. There were five substantive comments, and several administrative comments. The most significant substantive comment was that the Next Generation Target Control System (NGTCS) was not categorized as a terminated project.

AF/TE requests a formal briefing on the final results. If there are any questions or comments please contact my POC for CTEIP, Mr. Lee Peron at (703) 697-0290.

  
JOHN T. MANCLARK  
Director, Test and Evaluation

Attachments:

1. Comments Matrix

*America's Air Force -- No One Comes Close*

## **Team Members**

The Office of the Deputy Inspector General for Auditing of the Department of Defense, Acquisition Management prepared this report. Personnel of the Office of the Inspector General of the Department of Defense who contributed to the report are listed below.

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